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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,715	01/17/2002	Christopher Cavallaro	B01-64	8980

7590  
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09/04/2003

EXAMINER

GORDON, RAEANN

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 09/04/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n N .

10/051,715

Applicant(s)

CAVALLARO ET AL.

Examiner

Raeann Gorden

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Information Disclosure Statement***

Applicant is requested to provide a copy of references FE and FG.

### ***Drawings***

The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81. No new matter may be introduced in the required drawing.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-7, 10-12, and 21-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Hayashi et al (5,830,086). Regarding claim 1, Hayashi discloses a two-layer core comprising an inner solid core and an outer solid core and a two-layer cover (fig 1). The inner solid core has a diameter from 20 –37 mm or 0.787-1.46 inches and a distortion from 3.5 to 10 mm under a load of 100 kg (fig 1). The outer core layer has a

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diameter from 30 – 40 mm or 1.18-1.57 inches. The inner cover layer has a thickness from 0.3 to 3 mm, which provides an inner cover layer diameter from 30.6 – 46 mm or 1.2 – 1.81 inches (col. 4, lines 33-34). ~~The~~ The inner cover layer has a Shore D hardness less than or equal to 58. The outer cover layer has a Shore D hardness less than or equal to 60. In regards to the material hardness less than 50 Shore D, the limitation is not relevant to the final product. Regarding claim 3, the inner cover layer has a thickness from 0.3 to 3 mm, which provides an inner cover layer diameter from 30.6 – 46 mm or 1.2 – 1.81 inches (col. 4, lines 33-34). Regarding claims 4 and 5, the inner solid core has a diameter from 20 – 37 mm or 0.787-1.46 inches. Regarding claims 6 and 7, the outer core layer has a diameter from 30 – 40 mm or 1.18-1.57 inches. Regarding claim 10, the center is solid. Regarding claim 11, the inner cover layer has a thickness from 0.3 to 3 mm or 0.01 to 0.11 inch. Regarding claim 12, the inner cover layer may be made from ionomers (col. 4, lines 39-43). Regarding claims 21-23, the SCDI compression value of the core is an inherent feature of Melvin since the deformation is identical to applicant's

Claims 1-7, 10-12 and 25-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Melvin et al (5,779,562). Melvin discloses a golf ball comprising a two layer core and a two layer cover. The center core has a diameter from 10 to 35 mm or 0.39 to 1.38 inches (col. 9, line 22). The deflection is considered an inherent feature since Melvin discloses similar materials to applicant's and also discloses a PGA compression of 85 or less for the core (col. 5, lines 6-9). The outer core layer has a diameter from 30 to 40 mm or 1.18 to 1.57 inches (col. 9, lines 24-26). The inner cover

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layer has a thickness from 0.01 to 0.10 inch, which provide an diameter from 1.2 to 1.77 inches (col. 12, lines 30-32). The inner cover layer has a Shore D hardness of 60 or more (col. 12, lines 33-34). The outer cover layer has a Shore D hardness of 55 or less (col. 15, line 11). In regards to the material hardness less than 50 Shore D, the limitation is not relevant to the final product. Regarding claim 2, the inner cover layer has a Shore D hardness of 60 or more (col. 12, lines 33-34). Regarding claim 3, the inner cover layer has a thickness from 0.01 to 0.10 inch, which provide an diameter from 1.2 to 1.77 inches (col. 12, lines 30-32). Regarding claims 4 and 5, the center core has a diameter from 10 to 35 mm or 0.39 to 1.38 inches (col. 9, line 22). Regarding claims 6 and 7, the outer core layer has a diameter from 30 to 40 mm or 1.18 to 1.57 inches (col. 9, lines 24-26). Regarding claim 10, the center is solid. Regarding claim 11, the inner cover layer has a thickness from 0.01 to 0.10 inch. Regarding claim 12, the inner cover layer is made form ionomers. Regarding claims 25-27, the outer cover layer may be made from thermoset or thermoplastic polyurethane (col. 14, lines 55-67). The cover may include an optical brightener (col. 22, line 9). The limitations regarding the polyurethane are inherently possessed by thermoset and themoplastic polyurethanes. See Wu 5,334,673 col. 1, lines 46-53.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al (5,830,086) in view of Melvin et al (5,779,562). Hayashi discloses the invention as shown and further discloses the outer core layer harder than the inner core layer but does not disclose an inner cover layer harder than the outer cover layer. However, Melvin teaches an inner cover layer harder than the outer cover. One of ordinary skill in the art would modify Hayashi in view of Melvin for increased COR (see Melvin col. 12, lines 20-30).

Claims 13-20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al and Melvin et al (each) in view of Moriyama (5,776,012). Hayashi and Melvin each disclose the invention as shown above but neither discloses an organosulfur compound. However, Moriyama teaches an organosulfur compound in a core. Regarding claim 13, Hayashi and Melvin each disclose polybutadiene cores. Moriyama teaches 0.3 to 2.3 parts organosulfur in a polybutadiene core. Regarding claims 14-20, Moriyama teaches the organosulfur compound may be pentachlorothiophenol or zinc salts of thiophenols (col. 2, lines 58-61). Regarding claim 24, Hayashi and Melvin disclose polybutadiene compositions with acrylic acid, peroxide, and fillers. One of ordinary skill in the art would have included organosulfur in the core compositions to enhance the rebound performance (col. 2, lines 55-60).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raeann Gorden whose telephone number is 703-308-8354. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Sewell can be reached on 703-308-2126. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.



Raeann Gorden  
Examiner  
Art Unit 3711

rg  
August 8, 2003